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ATTACHMENT TO LEON COUNTY AND CITY OF TALLAHASSEE SOUTHEAST FARM MEMORANDUM OF AGREEMENT APPROVED BY CITY COMMISSION ON \_\_\_\_\_ AND BY LEON COUNTY BOARD OF COUNTY COMMISSIONERS ON \_\_\_\_\_.

GUIDE TO THE NATURAL COMMUNITIES OF FLORIDA

prepared by the
Florida Natural Areas Inventory
and
Florida Department of Natural Resources

February 1990

Attachment # 33

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#### INTRODUCTION

This document presents the hierarchical classification of 81 Natural Communities that has been developed by the Florida Natural Areas Inventory (FNAI) and identified as collectively constituting the original, natural biological associations of Florida. A Natural Community (NC) is defined as a distinct and reoccurring assemblage of populations of plants, animals, fungi and microorganisms naturally associated with each other and their physical environment.

The levels of this classification become increasingly more complex and finely subdivided. At all levels, however, there are overlaps between types because of overlapping species distributions and intergrading physical conditions. At the broadest level, the Natural Communities are grouped into seven Natural Community Categories based on hydrology and vegetation. Terrestrial Natural Communities are upland habitats dominated by plants which are not adapted to anaerobic soil conditions imposed by saturation or inundation for more than 10% of the growing season. Palustrine Natural Communities are freshwater wetlands dominated by plants adapted to anaerobic substrate conditions imposed by substrate saturation or inundation during 10% or more of the growing season. Lacustrine Natural Communities occur in non-flowing wetlands of natural depressions lacking persistent emergent vegetation except around the perimeter. Riverine Natural Communities are natural, flowing waters from their source to the downstream limits of tidal influence, and bounded by channel banks. Subterranean Natural Communities occur below ground surface. Estuarine Natural Communities are subtidal, intertidal, and supratidal zones of coastal water bodies, usually partially enclosed by land but with a connection to the open sea, within which seawater is significantly diluted with freshwater inflow from the land. Marine Natural Communities occur in subtidal, intertidal, and supratidal zones of the sea, landward to the point at which seawater becomes significantly diluted with freshwater inflow from the land. A second level of the hierarchy splits the Natural Community Categories into Natural Community Groups, such as Xeric Uplands, Coastal Uplands, Floodplain Wetlands, and so forth.

The third level of the classification, Natural Community Types, is the level at which Natural Communities are named and described. Natural Communities are characterized and defined by a combination of physiognomy, vegetation structure and composition, topography, land form, substrate, soil moisture condition, climate, and fire. They are named for their most characteristic biological or physical feature. The Natural Communities can be further subdivided into Plant Communities that are based on the dominant vegetation. These subdivisions are not presented in this document.

The arrangement of Natural Communities by Natural Community Groups and the arrangement of the Groups by Natural Community Types is given in the Table of Contents. The Natural Community classification hierarchy, the descriptions, and the ranks are all part of a dynamic system that will change as new information is acquired. Because of the relative paucity of data on many Natural Communities and the continuing development of the system, the information presented here should not be considered as final, but as a current, nontechnical introduction subject to change. Appendices 1 and 2 refer the common names used in this document to scientific names.

Table 1 shows the relative ranks of the NCs. FNAI uses several criteria to determine the relative rarity and threat to each community type; these are translated or summarized into a global and a state rank, the G and S ranks, respectively. Most G ranks for NCs are temporary pending comparison and coordination with other states using this methodology to classify and rank vegetation types. (Contact Florida Natural Areas Inventory 22

for most recent natural community ranks.) A few NCs and several Plant Communities occur only or mostly in Florida and can be considered endemic to Florida. (See J.W. Muller et al. 1989. "Summary Report on the Vascular Plants, Animals and Plant Communities Endemic to Florida". Florida Game and Fresh Water Fish Commission, Nongame Wildlife Program, Technical Report No. 7.) The only opportunity for protection of these communities is in Florida and they should be given special consideration in Florida's protection efforts.

Numerous classification schemes exist for the state of Florida. All of these are more or less subjective and incorporate the observer's biases. The construction and usefulness of these classifications depends on the purpose for which they were constructed and the purpose for which they are used. To facilitate comparisons among these schemes, Appendix 3 relates some of those vegetation classification schemes that concern the vegetation of the entire state. The various classification schemes recognize different numbers of vegetation types, ranging from 10 terrestrial and palustrine types in for the Kuchler system to 81 for the FNAI classification, which includes marine and estuarine types.

In actual practice, the FNAI classification is perhaps more often useful in undisturbed, or relatively undisturbed, vegetation than in disturbed sites, and in "potential natural vegetation" rather than existing vegetation. As with most vegetation classifications, the lines between types are often obscure in the field because of the overlap of species and the intergradation among species and physical features. For these reasons, and others, probably no single example of a community type will precisely match all the specifics given in these descriptions.

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One of the advantages of the FNAI classification is that it is flexible and dynamic. It will change as additional data are accumulated. Ultimately, it will be desirable to locate several examples of each type, perhaps in different portions of the state, to serve as reference examples so that users of the classification can have real examples to which to refer.

Table 1: Florida Natural Areas Inventory Global (G) and State (S) ranks for Natural Communities.

TERRESTRIAL	PALUSTRINE (CONT.)		
XERIC UPLANDS	FLOODPLAIN WETLANDS		
G? S2 Sandhill	G4 S4? Bottomland Forest		
G2 S2 Scrub	G? S3 Floodplain Forest		
G? S3 Xeric Hammock	G3? S2 Floodplain Marsh		
	G? S4? Floodplain Swamp		
COASTAL UPLANDS	G3 S32—Freshwater Tidal Swamp		
G4? S2 Beach Dune	G4 S4? Slough		
G3? S2 Coastal Berm	G4? S4? Strand Swamp		
G3 S2 Coastal Grasslands	G4? S3 Swale		
G3? S1 Coastal Rock Barren			
G3? S2 Coastal Strand	BASIN WETLANDS		
G4 S3 Maritime Hammock	G4? S3 Basin Marsh		
G3 S2 Shell Mound	G? S4? Basin Swamp		
	G? S3 Bog		
MESIC UPLANDS	G4? S3 Depression Marsh		
G? S2 Bluff	G4? S3? Dome Swamp		
G3 S2 Slope Forest	•		
Gl Sl Upland Glade	<u>LACUSTRINE</u>		
G? S3 Upland Hardwood Forest	G3 S2 Clastic Upland Lake		
G? S4 Upland Mixed Forest	G2 S1 Coastal Dune Lake		
G? S3 Upland Pine Forest	G2 S1 Coastal Rockland Lake		
	G4? S3 Flatwoods/Prairie Lake		
ROCKLANDS	G4 S4 Marsh Lake		
G1 S1 Pine Rocklands	G4? S2 River Floodplain Lake		
G? S2 Rockland Hammock	G3 S2 Sandhill Upland Lake		
G? S2 Sinkhole	G3 S3 Sinkhole Lake		
· · · · · · · · · · · · · · · · · · ·	G4 S3 Swamp Lake		
MESIC FLATLANDS			
G2 S2 Dry Prairie	<u>RIVERINE</u>		
G? S4 Mesic Flatwoods	G4 S2 Alluvial Stream		
G4 S4 Prairie Hammock	G4 S2 Blackwater Stream		
G3 S3 Scrubby Flatwoods	G4 S2 Seepage Stream		
DAT HOMB D. TO	G2 S2 Spring-run Stream		
PALUSTRINE			
WET FLATLANDS	SUBTERRANEAN		
G? S4? Hydric Hammock	G3 S2 Aquatic Cave		
G? S4? Marl Prairie	G3 S1 Terrestrial Cave		
G? S4? Wet Flatwoods			

G? S4? Wet Prairie

#### SEEPAGE WETLANDS

G4? S4? Baygall

G3?:S2 Seepage Slope

<u>MARINE</u> AND <u>ESTUARINE</u>		MA	MARINE AND ESTUARINE (cont.)		
	MINERAL BASED			FLORAL BASED	
G3	S3 Consolidated Substrate	G3	S2	Algal Bed	
G5	S5 Unconsolidated Substrate	G2	S2	Seagrass Bed	
		G4	S4	Tidal Marsh	
	FAUNAL BASED	G3	S3	Tidal Swamp	
G2	S1 Coral Reef			-	
G3	S3 Mollusk Reef			COMPOSITE SUBSTRATE	
G2	S1 Octocoral Bed	G3	S3	Composite Substrate	
G2	S2 Sponge Bed			-	
G1	S1 Worm Reef				

# Definition of Global (G) element ranks:

- G1 = Critically imperiled globally because of extreme rarity (5 or fewer occurrences or very little remaining area, e.g., <2,000 acres) or because of some factor(s) making it especially vulnerable to extinction;
- G2 = Imperiled globally because of rarity (6-20 occurrences or very little remaining area, e.g., <10,000 acres) or because of some factor(s) making it very vulnerable to extinction throughout its range;
- G3 = Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range or because of other factors making it vulnerable to extinction throughout its range, 21 to 100 occurrences;
- G4 = Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery;
- G5 = Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery;
- G? = uncertain Global rank.

## Definition of State (S) element ranks:

- S1 = Critically imperiled in state because of extreme rarity (5 or fewer occurrences or very little remaining area) or because of some factor(s) making it especially vulnerable to extinction;
- S2 = Imperiled in state because of rarity (6-20 occurrences or little remaining area) or because of some factor(s) making it very vulnerable to extinction throughout it range;
- S3 = Rare or uncommon in state (on the order of 21 to 100 occurrences);
- S4 = Apparently secure in state, although it may be rare in some parts of its state range;
- S5 = Demonstrably secure in state and essentially ineradicable under present conditions;
- S? = uncertain State rank.

#### **TERRESTRIAL**

XERIC UPLANDS - very dry, deep, well-drained hills of sand with xeric-adapted vegetation.

Sandhill - (synonyms: longleaf pine - turkey oak, longleaf pine - xerophytic oak, longleaf pine - deciduous oak, high pine). Sandhills are characterized as a forest of widely spaced pine trees with a sparse understory of deciduous oaks and a fairly dense ground cover of grasses and herbs on rolling hills of sand. The most typical associations are dominated by longleaf pine, turkey oak, and wiregrass. Other typical plants include bluejack oak, sand post oak, sparkleberry, persimmon, winged sumac, pinewoods dropseed, Indian grass, wild buckwheat, queen's delight, yellow foxglove, bracken fern, runner oak, goats rue, partridge pea, milk pea, dollarweeds, wild indigo, gopher apple, and golden-aster. Typical animals include tiger salamander, barking treefrog, spadefoot toad, gopher frog, gopher tortoise, worm lizard, fence lizard, mole skink, indigo snake, coachwhip snake, pine snake, short-tailed snake, crowned snake, eastern diamondback rattlesnake, bobwhite, ground dove, red-headed woodpecker, rufous-sided towhee, fox squirrel and pocket gopher.

Sandhills occur on hilltops and slopes of gently rolling hills. Their soils are composed of deep, marine-deposited, yellowish sands that are well-drained and relatively sterile. The easily leached soil nutrients are brought back to the surface by the burrowing habits of some sandhill animals. Sandhills are important aquifer recharge areas because the porous sands allow water to move rapidly through with little runoff and minimal evaporation. The deep sandy soils help create a xeric environment that is accentuated by the scattered overstory, which allows more sunlight to penetrate and warm the ground. The absence of a closed canopy also allows Sandhills to cool more rapidly at night and to retain less air moisture. Thus, temperature and humidity fluctuations are generally greater in Sandhills than in nearby closed canopy forests.

Fire is a dominant factor in the ecology of this community. Sandhills are a fire climax community, being dependent on frequent ground fires to reduce hardwood competition and to perpetuate pines and grasses. The natural fire frequency appears to be every 2 to 5 years. Without frequent fires, Sandhills may eventually succeed to Xeric Hammock. Unburned or cutover Sandhills may be dominated by turkey oak.

Sandhills are often associated with and grade into Scrub, Scrubby Flatwoods, Mesic Flatwoods, Upland Pine Forest, or Xeric Hammock. Sandhills were widespread throughout the Coastal Plain, but most have been degraded by timbering, overgrazing, plowing, fire exclusion, and other disturbances. Much of Florida's Sandhill communities have been converted to citrus groves, pastures, pine plantations, or residential and commercial developments. Thus, the importance of properly managing the remaining tracts is accentuated.

Scrub - (synonyms: sand pine scrub, Florida scrub, sand scrub, rosemary scrub, oak scrub). Scrub occurs in many forms, but is often characterized as a closed to open canopy forest of sand pines with dense clumps or vast thickets of scrub oaks and other shrubs dominating the understory. The ground cover is generally very sparse, being dominated by ground lichens or, rarely, herbs. Open patches of barren sand are common. Where the overstory of sand pines is widely scattered or absent altogether, the understory and barren sands are exposed to more intense sunlight. Typical plants include sand pine, sand live oak, myrtle oak, Chapman's oak, scrub oak, saw palmetto, rosemary, rusty lyonia, ground lichens, scrub hickory, scrub palmetto, hog plum, silk bay, beak rush, milk peas, and stagger bush. Typical animals include red widow spider, scrub wolf spider, oak toad, Florida scrub lizard, blue-tailed mole skink, sand skink, six-lined racerunner, coachwhip, ground dove, scrub jay, loggerhead shrike, yellow-rumped warbler, rufous-sided towhee, Florida mouse, and spotted skunk. Scrubs of the Lake Wales Ridge are notable for the large number of narrowly endemic plants and animals that occur in them.

Scrub occurs on sand ridges along former shorelines. Some of the sand ridges originated as wind-deposited dunes, others as wave-washed sand bars. Some Scrub soils are composed of well-washed, deep sands

that are brilliant white at the surface; some Scrubs occur on yellow sands. The loose sands drain rapidly, creating very xeric conditions for which the plants appear to have evolved several water conservation strategies.

Scrub is essentially a fire maintained community. Ground vegetation is extremely sparse and leaf fall is minimal, thus reducing the chance of frequent ground fires. As the sand pines mature, however, they retain most of their branches and build up large fuel supplies in their crowns. When a fire does occur, this fuel supply, in combination with the resinous needles and high stand density, ensures a hot, fast burning fire. Such fires allow for the regeneration of the Scrub community which might otherwise succeed to Xeric Hammock. The minerals in the vegetation are deposited on the bare sand as ashes, and the heat of the fire generally facilitates the release of pine seeds. As discerned from the life histories of the dominant plants, scrub probably burns catastrophically once every 20 to 80 years or longer.

Scrub is associated with and often grades into Sandhill, Scrubby Flatwoods, Coastal Strand, and Xeric Hammock. Some Xeric Hammocks are advanced successional stages of Scrub, making intermediate stages difficult to classify. Scrub occurs almost exclusively in Florida, although coastal scrubs extend into adjacent Alabama and Georgia.

Because Scrub occurs on high dry ground and is not an aesthetically pleasing habitat, at least to the uninitiated, this ecosystem and its many endangered and threatened species are rapidly being lost to development. Scrub is also readily damaged by off-road vehicle traffic or even foot traffic, which destroys the delicate ground cover and allows the loose sand to erode. Ground lichens may require 50 years or more to recover.

Xeric Hammock - (synonyms: xeric forest, sand hammock, live oak forest, oak woodland, oak hammock). Xeric Hammock is characterized as either a scrubby, dense, low canopy forest with little understory other than palmetto, or a multi-storied forest of tall trees with an open or closed canopy. Several gradations between these extremes exist. Typical plants include live oak, sand live oak, laurel oak, turkey oak, blackjack oak, red oak, sand post oak, staggerbush, saw palmetto, sparkleberry, pignut hickory, southern magnolia, redbay, American holly, wild olive, black cherry, fox grape, beautyberry, bluejack oak, Chapman's oak, persimmon, and yaupon. Typical animals include barking treefrog, spadefoot toad, gopher tortoise, worm lizard, fence lizard, black racer, red rat snake, hognose snake, crowned snake, screech-owl, turkey, blue jay, eastern mole, gray squirrel, and eastern flying squirrel.

Xeric Hammock is an advanced successional stage of Scrub or Sandhill. The variation in vegetation structure is predominantly due to the original community from which it developed. In all cases, however, the soils consist primarily of deep, excessively-drained sands that were derived from old dune systems. The sparsity of herbs and the relatively incombustible oak litter preclude most fires from invading Xeric Hammock. When fire does occur, it is nearly always catastrophic and may revert Xeric Hammock into another community type. Xeric Hammock only develops on sites that have been protected from fire for 30 or more years.

Xeric Hammocks are often associated with and grade into Scrub, Sandhill, Upland Mixed Forest or Slope Forest. The species composition of Xeric Hammock is also often similar to Prairie Hammock and Maritime Hammock. Xeric Hammock is often considered the climax community on sandy uplands.

Xeric Hammock occurs generally as isolated patches that rarely cover extensive areas. Mature examples are rare, and scrub derived types have always been scarce. Because of its general location on high ground with big trees, Xeric Hammock is prime residential property, especially when near the coast. Remaining tracts of Xeric Hammock require protection from fire and development.

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# APPENDIX 1. Index of Plant Common Names and their Scientific Names

alligator weed
American beech
American cupscale
American holly
American hornbeam
American lotus
American sycamore
American wisteria

arum arrowheads

ash

ashe magnolia

asters

Atlantic white cedar

bald cypress
banana lily
basswood
bay cedar
beach bean
beach cordgrass
beach elder

beach jacquemontia beach morning glory

beach orach
beakrush
beakrush sedges
beardgrass
beautyberry
bedstraw
beech drops
bellwort
big cordgrass
bigleaf snowbell

black cherry black-eyed susan

blackgum

black ironwood black mangrove black needlerush black sedge black titi black walnut black willow

blackjack oak blackroot bladder nut bladderpod Alternanthera philoxeroides

Fagus grandifolia Sacciolepis striata

Ilex opaca

Carpinus caroliniana

Nelumbo lutea

Plantanus occidentalis
Wisteria frutescens
Peltandra spp.
Sagittaria spp.
Fraxinus spp.
Magnolia ashei

Chamaecyparis thyoides
Taxodium distichum
Nymphaea mexicana

Tilia spp.

Aster spp.

Suriana maritima
Canavalia rosea
Spartina spp.
Iva imbricata

Jacquemontia reclinata
Ipomoea stolonifera
Atriplex arenaria
Rhynchospora spp.
Rhynchospora spp.
Andropogon spp.
Callicarpa americana

Galium spp.

Epifagus virginiana

Uvularia spp.

Spartina cynosuroides Styrax grandifolia Prunus serotina Rudbeckia hirta

Nyssa biflora

Krugiodendron ferreum Avicennia germinans Juncus roemerianus Schoenus nigricans Cliftonia monophylla

Juglans nigra Salix nigra

Ouercus marilandica

Pterocaulon pycnostachyum

Staphylea trifolia Sesbania vesicaria bladderwort blazing star blolly bloodroot

blue phlox bluebell blueberry bluejack oak bluestem

bluestem palmetto

bluff oak bog buttons bog mat bog moss

bottlebrush threeawn

box elder bracken fern Brazilian pepper broomsedge buckthorn bulrushes bunch flower

bustic
butterwort
buttonbush
buttonwood
cabbage palm
caper tree
caric sedges
Carolina ash
Carolina holly
carpet grass
cat's claw
catalpa
cattail

chara

chain fern Chapman's oak

Christmas fern cinnamon fern clubmoss

coastal plain willow

cocoplum coffee colubrina

coin vine

common persimmon

common reed coneflower coontail <u>Utricularia</u> spp. <u>Liatris</u> spp. <u>Pisonia</u> discolor

Lachnanthes caroliniana, Sanguinaria

canadensis
Phlox divaricata
Campanula spp.
Vaccinium spp.
Quercus incana
Andropogon spp.
Sabal minor
Quercus austrina
Lachnocaulon spp

Lachnocaulon spp.
Wolffiella spp.
Mayaca fluviatilis
Aristida spiciformis
Acer negundo
Pteridium aquilinum

Schinus terebinthifolius
Andropogon virginicus
Rhamnus caroliniana

Scirpus spp.

Melanthium virginicum Dipholis salicifolia Pinguicula spp.

Cephalanthus occidentalis

Conocarpus erecta
Sabal palmetto
Capparis spp.
Carex spp.

Fraxinus caroliniana

<u>Ilex ambigua</u> <u>Axonopus</u> spp.

Pithecellobium unquis-cati

Catalpa spp.
Typha spp.
Woodwardia spp.
Quercus chapmanii

Chara spp.

Polystichum acrostichoides
Osmunda cinnamomea
Lycopodium spp.
Salix caroliniana
Chrysobalanus icaco
Colubrina arborescens
Dalbergia ecastophyllum
Diospyros virginiana
Phragmites communis
Rudbeckia fulgida

Ceratophyllum demersum

coontie coral bean coral greenbrier cordgrass coreopsis

cottonwood

cowhorn orchid creeping beggarweed

crossvine crowfoot grass crownbeard

cucumber sunflower

cutgrass cutthroatgrass cypress dahoon holly dangleberry deer tongue

devil's walking stick

dewberry

diamond-flower diamond-leaf oak

dogfennel
dog-hobble
doll's eyes
dollar bonnet
dollar wort
dollarweeds
dotted smartweed

dropseed
duckweed
dune panic grass
dune sunflower
dwarf blueberry
dwarf huckleberry
eastern cottonwood
eastern hophornbeam

eel grass elderberry elodea

evening primrose false foxglove false hellebore false mastic fanwort fetterbush fire flag floating heart

Florida elm

Florida maple

Zamia integrifolia
Erythrina herbacea
Smilax walteri
Spartina spp.
Coreopsis spp.
Populus spp.

Cyrtopodium punctatum
Desmodium incanum
Anisostichus capreolata
Dactyloctenium aegyptium
Verbesina chapmanii

Helianthus debilis ssp. cucumerifolius

Leersia spp.
Panicum abscissum
Taxodium spp.
Ilex cassine

Gavlussacia frondosa

Carphephorus odoratissimus

Aralia spinosa Rubus spp.

Hedyotis nigricans
Quercus laurifolia
Eupatorium capillifolium

Leucothoe axillaris
Actea pachypoda
Brasenia schreberi
Hydrocotyle spp.
Rhynchosia spp.
Polygonum punctatum

Sporobolus spp. Lemna spp.

Panicum amarulum
Helianthus debilis
Vaccinium sp.
Gaylussacia dumosa
Populus deltoides
Ostrya virginiana
Vallisneria americana
Sambucus canadensis
Elodea canadensis
Oenothera spp.

Agalinis spp.
Veratrum woodii

Mastichodendron foetidissimum

Cabomba caroliniana

Lyonia lucida
Thalia geniculata
Nymphoides aquatica

Ulmus americana var. floridana

Acer barbatum

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Florida yew

flowering dogwood

forestiera fox grape

fragrant waterlily

fringe tree frog's bit frostweed gallberry garberia

gay feather geiger tree

giant cutgrass

glasswort goats rue

golden aster

golden canna golden club

goldenrod gopher apple

grass-of-parnassus

grasses
green ash
greenbrier
ground cherry
ground lichens
guiana-plum

guiana-plum gulf cordgrass gulf sebastiana gum bumelia

gumbo limbo hackberry

halberd fern hatpins hawthorn

hazel alder Hercules' club

hog plum hophornbeam hornbeam

horse sugar huckleberry

hurrah-bush

hydrilla

Indian grass indigo berry

indigo bush

inkberry inkwood

innocence

<u>Taxus floridana</u>

Cornus florida

Forestiera spp.

Vitis labrusca

Nymphaea odorata

Chionanthus virginica Limnobium spongia

Verbesina virginica

<u>Ilex glabra</u>

Garberia heterophylla

<u>Liatris</u> spp. Cordia <u>sebestena</u>

Zizaniopsis miliacea

Salicornia spp.

Tephrosia virginiana

Chrysopsis spp. Canna flaccida

Orontium aquaticum

Solidago spp.
Licania michauxii
Parnassia grandifolia

Poaceae

Faxinus pensylvanica

Smilax spp.
Physalis spp.
Cladonia spp.
Drypetes lateriflora

Spartina spartinae
Sebastiana fruticosa
Bumelia lanuqinosa

Bursera simaruba

Celtis spp.

Tectaria amesiana Eriocaulon spp. Crataegus spp. Alnus serrulata

Zanthoxylum clava-herculis

Ximenia americana
Ostrya virginiana
Carpinus caroliniana
Symplocos tinctoria
Gaylussacia spp.
Leucothoe racemosa
Hydrilla verticillata

Sorghastrum spp. Randia aculeata

Indigofera suffruticosa

Scaevola plumieri Exothea paniculata Hedyotis procumbens

knotweed

lanceleaf greenbrier

lancewood lantana larkspur

large gallberry laurel greenbrier

laurel oak
laurel cherry
leather fem
leatherwood
licania

lidflowers

little blue maidencane

live oak liverleaf lizard's tail loblolly bay loblolly pine locustberry longleaf pine

lousewort love grass love vine mahogany maiden cane

maiden hair fern male-berry

manatee grass

marlberry
marsh elder
marsh fern
marsh fleabane
marsh pennywort

marsh pennywor marsh pink marsh samphire marshhay mastic

meadow-beauty melaleuca milfoil milk peas milkweed

milkwort
mockemut hickory
mosquito fern
mountain laurel
muhly grass
musky mint
myrsine

<u>Polygonum</u> spp. Smilax <u>smallii</u>

Nectandra coriacea

Lantana spp.

Delphinium carolinianum

Ilex coriacea
Smilax laurifolia
Quercus hemisphaerica
Prunus caroliniana

Acrostichum danaeifolium

Dirca palustris
Licania michauxii
Calyptranthes spp.

Amphicarpum muhlenbergianum

Ouercus virginiana
Hepatica nobilis
Saururus eernuus
Gordonia lasianthus

Pinus taeda
Bursonima lucida
Pinus palustris
Pedicularis spp.
Eragrostis spp.
Cuscuta spp.

Swietenia mahagoni Panicum hemitomon

Adiantum spp.

Lyonia liqustrina

Cymodocea filiformis

Ardisia escallonioides

Iva frutescens

Thelypteris palustris

Pluchea spp.

<u>Hydrocotyle umbellata</u>

Sabatia spp.

Philoxerus vermicularis

Spartina patens

Mastichodendron foetidissimum

Rhexia spp.

Melaleuca quinquenervia Achillea millefolium

Galactia spp.
Asclepias spp.
Polygala spp.
Carya tomentosa
Azolla caroliniana
Kalmia latifolia
Muhlenbergia spp.

Hyptis alata

Myrsine guianensis

myrtle oak myrtle-leaved holly necklace pod needle palm netted chain fern nickerbean nut sedge oak-leaf hydrangea odorless wax myrtle Ogeechee tupelo orchid overcup oak panicums paradise tree parrot's feather partridgeberry partridge pea passion flower paw paw pencil flower pennywort pepper vine persimmon pickerelweed pigeon plum pignut hickory pine lily pinefern pinewoods dropseed pink azalea pinweed pitcher plants plume grass poison ivy poisonwood pond apple pond cypress pond pine pondweed poppy mallow possumhaw post oak prickly apple prickly ash prickly pear cactus primrose willow privet pumpkin ash purple coneflower pyramid magnolia

Ouercus myrtifolia Ilex myrtifolia Sophora tomentosa. Rhapidophyllum hystrix Woodwardia areolata Caesalpinia spp. Cyperus esculentus Hydrangea quercifolia Myrica inodora Nyssa ogeche Orchidaceae Ouercus lyrata Panicum spp. Simarouba glauca Myriophyllum brasiliense Mitchella repens Cassia fasciculata Passiflora spp. Asimina spp. Stylosanthes biflora Hydrocotyle spp. Ampelopsis arborea Diospyros virginiana Pontederia cordata Coccoloba diversifolia Carva glabra Lilium catesbaei

Coccoloba diversifolia
Carya glabra
Lilium catesbaei
Anemia adiantifolia
Sporobolus junceus
Rhododendron vasevi

Lechea spp.
Sarracenia spp.
Erianthus spp.

Toxicodendron radicans
Metopium toxiferum
Annona glabra

Taxodium ascendens
Pinus serotina

Potamogeton spp.
Callirhoe papaver

Ilex decidua, Viburnum nudum

Ouercus stellata
Cereus spp.

Zanthoxylum clava-herculis

Opuntia spp.

Ludwigia peruviana Ligustrum spp. Fraxinus profunda

Echinacea purpurea Magnolia pyramidata

queens delight rabbit tobacco racemed fetterbush

ragweed railroad vine ratibida rattanvine rattlebox

rattlesnake master rattlesnake plantain

red bay
red buckeye
red cedar
red chokeberry
red mangrove
red maple
red mulberry
red oak
redbud
redroot

redroot
redtop panicum
reimargrass
river birch
rosemary
rouge-plant
royal fern
royal palm
rubber vine
runner oak

rusty lyonia sagaretia salt grass salt myrtle saltbush saltmarsh bo

rushes

saltmarsh boltonia saltmeadow grass

saltwort
salvinia
sand cordgrass
sand hickory
sand live oak
sand pine
sand post oak
sand spur
sarsaparilla vine

sassafras satin leaf saw greenbrier saw palmetto Stillingia sylvatica

Pterocaulon pycnostachyum

Leucothoe racemosa

Ambrosia spp.

Ipomoea pes-caprae

Ratibida pinnata

Berchemia scandens

Crotalaria spp.

Polianthes virginica

Goodvera pubescens

Persea borbonia

Aesculus pavia

Juniperus virginiana

Aronia arbutifolia

Rhizophora mangle

Acer rubrum

Morus rubra

Quercus falcata Cercis canadensis

Lachnanthes caroliniana

Panicum rigidulum

Reimarochloa oligostachya

Betula nigra

Ceratiola ericoides

Rivina humilis

Osmunda regalis

Roystonea elata

Echites umbellata

Quercus pumila

Juncaceae

Lyonia ferruginea

Sageretia minutiflora

Distichlis spicata

Baccharis halimifolia

Baccharis spp.

Boltonia diffusa

Leptochloa fascicularis

Batis maritima

Salvinia rotundifolia

Spartina bakeri

Carva pallida

Ouercus geminata

Pinus clausa

Ouercus margaretta

Cenchrus spp.

Smilax pumila

Sassafras albidum

Chrysophyllum oliviforme

Smilax bona-nox

Serenoa repens

sawgrass scrub hickory scrub oak scrub palmetto sea blites sea daisv sea grape sea lavender sea oats sea oxeye sea purslane sea rocket seashore dropseed

seashore paspalum seaside heliotrope Sebastianbush sedges shaving brush

shining sumac shoal grass shoregrass shortleaf fig shortleaf pine side-oats grama

silk bay silky camellia silver maple silverbells slash pine slippery elm smartweed smooth cordgrass

snakeroot sneezeweed snowberry soapberry soft rush soldierwood Solomon's seal sourwood

south Florida slash pine southern blue flag southern magnolia southern naiads southern red cedar southern red oak southern watergrass Spanish bayonet Spanish moss

Spanish needle

Cladium jamaicense Carya floridana Ouercus inopina Sabal etonia Suaeda spp.

Borrichia arborescens Coccoloba uvifera Limonium spp. Uniola paniculata Borrichia frutescens Sesuvium spp. Cakile spp.

Sporobolus virginicus Paspalum distichum

Heliotropium curassavicum

Sebastiana fruiticosa

Cyperaceae

Penicillus capitatus Rhus copallina Halodule wrightii

Monanthochloe littoralis

Ficus citrifolia Pinus echinata

Bouteloua curtipendula

Persea humilis

Stewartia malacodendron

Acer saccharinum Halesia spp. Pinus elliottii Ulmus rubra Polygonum spp. Spartina alterniflora Sanicula spp.

Helenium spp.

Symphoricarpos albus

Sapindus spp. Juncus effusus Colubrina elliptica Polygonatum biflorum Oxydendrum arboreum Pinus elliottii var. densa

Iris virginica

Magnolia grandiflora Najas quadalupensis Juniperus virginiana Ouercus falcata

Hydrochloa caroliniensis

Yucca aloifolia Tillandsia usneoides Bidens bipinnata

Attachment #\_\_\_\_\_

sparkleberry spatterdock

sphagnum moss

spikerush spleenworts spruce pine St. John's wort stagger bush star alga

stargrass star rush

stiffcornel dogwood

stinging nettle stoppers strangler fig strawberry bush sugarberry sundews

sunflower swamp azalea swamp bay

swamp chestnut oak swamp cottonwood swamp dogwood swamp lily swamp primrose swamp privet

swamp red bay swamp titi swamp tupelo

sweet pepperbush

sweet-shrub sweetbay sweetgum sycamore tall wiregrass tallowtree tape grass tar flower tetrazygia

titi toothache grass torreya tree tough bumelia tread softly trilliums tulip poplar tupelo

turkey oak

tickseed

Vaccinium arboreum

Nyphar spp. Sphagnum spp. Eleocharis spp. Asplenium spp. Pinus glabra Hypericum spp. Lyonia spp.

Anadyomene stellata

Aletris spp.

Dichromena latifolia Cornus foemina

Cnidoscolus stimulosus

Eugenia spp. Ficus aurea

Euonymus americanus

Celtis laevigata Drosera spp. Helianthus spp.

Rhododendron viscosum

Persea palustris Ouercus michauxii Populus heterophylla

Cornus spp.

Crinum americanum Ludwigia palustris Forestiera acuminata Persea palustris Cyrilla racemiflora Nyssa sylvatica Clethra alnifolia Calycanthus floridus Magnolia virginiana Liquidambar styraciflua Platanus occidentalis

Sapium sebiferum Vallisneria americana Befaria racemosa Tetrazygia bicolor Coreopsis spp. Cyrilla racemiflora Ctenium aromaticum Torreya taxifolia

Aristida patula

Bumelia tenax Cnidoscolus stimulosus

Trillium spp.

Liriodendron tulipifera

Nyssa spp. Ouercus laevis

turtle grass twinflower varnish leaf velvet seed Venus'-hair fern Virginia creeper Virginia willow Walter viburnum water chestnut water elm water fern water hickory water hyacinth water hyssop water lettuce water lilies water meal water oak water pennywort water primrose water shield water spinach water sprite water tupelo waterlocust water milfoil wax myrtle weak-leaf yucca white alder white ash white cedar white grass white mangrove white oak white-top sedge white-topped aster widgeon grass wild buckwheat wild coffee wild comfrey wild ginger wild grape wild hydrangea wild indigos wild olive wild pine wild rice wild tamarind willow oak

willows

Thalassia testudinum Dyschoriste oblongifolia Dodonaea viscosa Guettarda scabra Adiantum capillus-veneris Parthenocissus quinquefolia Itea virginica Viburnum obovatum Nelumbo lutea Planera aquatica Salvinia rotundifolia Carya aquatica Eichhornia crassipes Bacopa spp. Pistia stratiotes Nymphaea spp. Wolffia spp. Ouercus nigra Hydrocotyle spp. Ludwigia repens Brasenia schreberi Ipomoea aquatica Ceratopteris thalictroides Nyssa aquatica Gleditsia aquatica Myriophyllum spp. Myrica cerifera Yucca flaccida Clethra spp. Fraxinus americana Chamaecyparis thyoides Leersia virginica Laguncularia racemosa Ouercus alba Dichromena spp. Aster paternus Ruppia maritima Eriogonum tomentosum Psychotria spp. Cynoglossum virginianum Hexastylis arifolia Vitis spp. Hydrangea spp. Indigofera spp.

Osmanthus americana

Lysiloma bahamense

Tillandsia spp.

Zizania aquatica

Ouercus phellos

Salix spp.

Attachment # 2
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winged elm
winged sumac
wiregrass
witchhazel
wood grass
wood-sorrel
yaupon
yellow-eyed grass
yellow jessamine

yellow foxglove

Ulmus alata Rhus copallina Aristida spp.

Hamamelis virginiana Oplismenus setarius

Oxalis spp.

Ilex vomitoria

Xyris spp.

Gelsemium spp.

Aureolaria flava

#### APPENDIX 2. Index of Animal Common Names and Their Scientific Names

Acadian flycatcher Alabama waterdog

alligator

alligator snapping turtle

American bittern American coot American robin American woodcock

amphiuma anchovy anemone

Bachman's sparrow

bald eagle banded sunfish banded topminnow banded water snake bank swallow

barking treefrog barracuda barred owl basket starfish

bass

beach mouse

bear beaver

belted kingfisher bird-voiced treefrog blackbanded darter

black crappie

black-crowned night heron

black drum
black-necked stilt
black swamp snake
blacktail shiner
blacktip shark
blenny

Empidonax virescens
Necturus alabamensis
Alligator mississippiensis
Macroclemys temminckii
Botaurus lentiginosus
Fulica americana
Turdus migratorius
Scolopax minor

see two-toed amphiuma

Anchoa sp.
see sea anemone
Aimophila aestivalis
Haliaeetus leucocephalus
Enneacanthus obesus
Fundulus cinqulatus
Nerodia fasciata
Riparia riparia
Hyla gratiosa
Sphyraena sp.
Strix yaria

Astrophyton muricatum

Micropterus sp.

Peromyscus polionotus

see black bear
Castor canadensis
Ceryle alcyon
Hyla avivoca

Percina nigrofasciata
Pomoxis nigromaculatus
Nycticorax nyticorax
Pogonias cromis
Himantopus mexicanus
Seminatrix pygaea
Notropis venustus
Carcharhinus limbatus

Bleniidae, Clinidae

blind cave crayfish

blind cave salamander

blue crab
blue jay
blue runner
bluebird
bluefish
bluegill

bluespotted sunfish blue-tailed mole skink boat-tailed grackle

bobcat bobwhite bonefish

bonnet-head shark

boring clam bowfin box turtle

branching candle sponge

broadhead skink
bronze frog
brook silverside
brown bullhead
brown darter
brown pelican
brown thrasher
brown water snake
brown-headed nuthatch

bullfrog
burrowing owl
burrowing shrimp
burrowing sponge
cactus coral

cactus co caracara cardinal

Carolina chickadee Carolina wren cave amphipod cave cricket

cave earwig cave isopod cave mite

cave orb spider cave shrimp cave snail cave spider

cave springtail cavernous star coral

cedar waxwing

Cambarus sp., Procambarus sp.,

Troglocambarus sp.
Haideotriton sp.
Callinectes sapidus
Cyanocitta cristata
Caranx crysos

see eastern bluebird
Pomatomus saltatrix
Lepomis macrochirus
Enneacanthus gloriosus
Eumeces egregius lividus

Quiscalus major

Lynx rufus

see northern bobwhite

Albula vulpes

Rhinobatos productus

Bivalvia — Amia calva

Terrapene carolina
Verongia longissima
Eumeces laticeps
Rana clamitans
Labidesthes sicculus
Ictalurus nebulosus
Etheostoma edwini
Pelecanus occidentalis
Toxostoma rufum

Nerodia taxispilota
Sitta pusilla
Rana catesbeiana
Athene cunicularia
Thalassinoidea
Demospongiae
Madacis decactis
Polyborus plancus

see northern cardinal
Parus carolinensis

Thryothorus ludovicianus

<u>Crangonyx</u> sp. Gryllidae Dermaptera <u>Caecidotea</u> sp. Acarina

Araneidae
Palaemonetes sp.

Gastropoda Araneae Collembola

Montastraea cavernosa Bombycilla cedrorum

chain pickerel channel catfish chickadee chicken turtle chimney swift chorus frog chub . chubsucker club finger coral coachwhip

common ground dove common nighthawk common yellowthroat

coon oyster

coot

Cope's gray treefrog

coral snake cotton mouse cotton rat cottontail rabbit

cowfish

cow-nosed ray

crappie

cravfish snake creek chub crested flycatcher

cricket frog crowned snake

deer

diamondback rattlesnake diamondback terrapin

dollar sunfish downy woodpecker dwarf salamander earth snake eastern bluebird

eastern diamondback rattlesnake

eastern fence lizard eastern garter snake eastern glass lizard eastern harvestmouse eastern king snake eastern kingbird eastern meadowlark eastern mole

eastern mud snake

eastern phoebe eastern screech-owl

eastern spadefoot eastern spotted skunk Esox niger

Ictalurus punctatus see Carolina chickadee Deirochelys reticularia

Chaetura pelagica Pseudacris sp. Cyprinidae Erimyzon sp. Porites porites

Masticophis flagellum Columbina passerina Chordeiles minor Geothlypis trichas

Ostrea frons see American coot Hyla chrysoscelis Micrurus fulvius

Peromyscus gossypinus Sigmondon hispidus Sylvilagus floridanus

Lactophrys sp. Rhinoptera bonasus

Pomoxis sp. Regina sp.

Semotilus atromaculatus see great crested flycatcher see southern cricket frog

Tantilla sp.

see white-tailed deer

see eastern diamondback rattlesnake

Malaclemys terrapin Lepomis marginatus Picoides pubescens Eurycea quadridigitata

Virginia sp. Sialia sialis

Crotalus adamanteus Sceloporus undulatus Thamnophis sirtalis Ophisaurus ventralis Reithrodontomys humulis Lampropeltis getulus Tyrannus tyrannus Sturnella magna Scalopus aquaticus see mud snake

Sayornis phoebe Otus asio

Scaphiopus holbrookii holbrookii

Spilogale putorius

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eastern woodrat

eel

elkhorn coral elliptical star coral

encrusting fire coral

Everglades pygmy sunfish

fiddler crab filefish fire coral five-lined skink flamingo tongue shell

flat bullhead

flatwoods salamander

flier

Florida cooter

Florida Keys sailfin molly

Florida Keys sheepshead minnow

Florida gar

Florida loggerhead sponge

Florida mouse Florida scrub jay

Florida softshell turtle

Florida water rat Florida worm lizard

flounder fox squirrel fungus coral gafftopsail catfish ghost crab

ghost crab giant brain coral gizzard shad

glossy crayfish snake

glossy ibis goby

golden mouse golden shiner golden topminnow gopher frog

gopher trog gopher tortoise grasshopper sparrow

gray fox gray rat snake gray squirrel gray treefrog great blue heron

great-crested flycatcher

great egret
great horned owl

greater siren

Neotoma floridana
Anguilliformes
Acropora palmata
Dichocoenia sp.
Milleporidae

Elassoma evergladei

<u>Uca</u> sp. Balistidae

Millepora alcicornis
Eumeces fasciatus

Cyphoma sp.

Ictalurus platycephalus
Ambystoma cingulatum
Centrarchus macropterus
Pseudemys floridana
Poecilia cf. latipinna
Cyprinodon cf. variegatus
Lepisosteus platyrhinchus
Spheciospongia vesparia
Podomys floridanus

Aphelocoma coerulescens

coerulescens
Apalone sp.
Neofiber alleni
Rhineura floridana
Pleuronectiformes
Sciurus niger
Mycetophyllia sp.
Bagre marinus
Ocypode quadrata

Colpophyllia natans
Dorosoma cepedianum
Regina rigida

<u>Plegadis falcinellus</u> Gobiidae

Peromyscus nuttali
Notemigonus crysoleucas

Fundulus chrysotus

Rana areolata

Gopherus polyphemus
Ammodramus savannarum
Urocyon cinereoargenteus
Elaphe obsoleta spiloides
Sciurus carolinensis
Hyla chrysoscelis
Ardea herodias
Myiarchus crinitus

Casmerodius albus
Bubo virginianus
Siren lacertina

Attachment # 2
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green anole

green-backed heron

green crab

green tree frog

green water snake

grooved brain coral

ground dove

ground skink

grouper

grunt

gulf hammock rat snake

hairy woodpecker

hammerhead shark

harvest mouse

harvestman

hermit crab

hermit thrush

hognose snake

hooded warbler

indigo snake

ironcolor shiner

ivory tree coral

jack

kestrel

key deer

killdeer

killifish

king rail

kingfisher

knobby brain coral

ladyfish

lake chubsucker

largemouth bass

leaf coral

least bittern

least killifish

least shrew

lemon shark

leopard frog

lesser siren

lightning whelk

limpkin

lined topminnow

little blue heron

little grass frog

lizardfish

lobed star coral

loggerhead musk turtle

loggerhead shrike

long-billed marsh wren

Anolis carolinensis

Butorides striatus

Decapoda sp.

Hyla cinerea

Nerodia cyclopion

Diploria labyrinthiformes

see common ground dove

Scincella lateralis

Serranidae

Hermulidae

Elaphe obsoleta williamsi

Picoides villosus

Sphyma sp.

see eastern harvest mouse

Phalangida

Paguroid<u>ea</u>

Catharus guttatus

Heterodon sp.

Wilsonia citrina

Drymarchon corais

Notropis chalybaeus

Oculina valenciennesi

Carangidae

Falco sparverius

Odocoileus virginianus clavium

Charadrius vociferus

Cyprinodontidae

Rallus elegans

see belted kingfisher

Diploria clivosa

Elops saurus

Erimyzon sucetta

Micropterus salmoides

Agaricia agaricites

Ixobrychus exilis

Heterandria formosa

Cryptotis parva

Negaprion brevirostris

see southern leopard frog

Siren intermedia

Busycon contrarium

Aramus guarauna

Fundulus lineolatus

Egretta caerulea

Limnaoedus ocularis

Synodontidae

Solenastrea hyades

Sternotherus minor

Lanius ludovicianus

Cistothorus palustris

Attachment # 2
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longnose gar lookdown Louisiana heron Louisiana waterthrush manatee mangrove crab

mangrove fox squirrel mangrove water snake

map turtle

marbled salamander

marsh crab marsh hawk marsh rabbit marsh snail meadowlark menhaden mink

Mississippi kite mole salamander

mole skink mosquito fish

mountainous star coral

mourning dove mud crab mud salamande:

mud salamander mud shrimp mud snail mud snake mud sunfish

mud turtle mud worms

mud worms

mullet muskrat needlefish newt night hawk

northern bobwhite

northern dusky salamander

northern harrier northern parula

northern rough-winged swallow

nurse shark nuthatch oak toad

Ohooppee shiner Okaloosa darter

Okefenokee pygmy sunfish

opossum

Lepisosteus osseus Selene vomer

see tricolored heron Seirus motacilla

Trichechus manatus

Goniopsis cruentata, Aratus pisonii,

Sesarma curacaoense Sciurus niger avicennia

Nerodia clarkii compressicauda

Graptemys sp.

Ambystoma opacum

Decapoda

see northern harrier
Sylvilagus palustris
Littorinidae, Ellobiidae
see eastern meadowlark

Brevoortia sp. Mustela vison

Ictinia mississippiensis Ambystoma talpoideum

Eumeces egregius
Gambusia affinis
Monastraea annularis
Zenaida macroura
Zanthidae

Pseudotriton montanus

Thalassinoidea
Nassariidae
Farancia abacura
Acantharchus pomotis

Kinosternon sp. Polychaeta

see striped mullet Ondatra zibethicus

Belonidae

Notophthalmus sp. see common nighthawk Colinus virginianus Cardinalis cardinalis Desmognathus fuscus

Circus cyaneus
Parula americana

Stelgidopteryx serripennis Ginglymostoma cirratum

Sitta sp.

Bufo guercicus Notropis leedsi

Etheostoma okaloosae Elassoma okefenokee

Didelphis virginiana

orchard oriole

osprey

otter

ovenbird

oyster drill

oyster leech

palm warbler

parula warbler

pea crab

peninsular cooter

periwinkle

permit

pig frog

pileated woodpecker

pillar coral

pine snake

pine warbler

pinewoods treefrog

pinfish

pink shrimp

pirate perch

pocket gopher

polychaete

polychaete worm

pompano

porgy

porous coral

prothonotary warbler

puffers

purple shrimp

pygmy killifish

pygmy rattlesnake

quillback

raccoon

rainbow snake

rat snake

ray

red drum

red ratsnake

red salamander

red widow spider

red-bellied snake

red-bellied watersnake

red-bellied woodpecker

redbreast sunfish

redear sunfish

redeye chub

red-eved vireo

redfin pickerel

redfish

Icterus spurius

Pandion haliaetus

see river otter

Seiurus aurocapillus

Urosalpinx sp.

Hirudinea

Dendroica palmarum

see northern parula

Pinnotheridae sp.

Pseudemys floridana peninsularis

Littorinidae

Trachinotus falcatus

Rana gylio

Dryocopus pileatus

Dendrogyra cylindrus

Pituophis melanoleucas

Dendroica pinus

Hyla femoraus

Lagodon rhomboides

Penaeus duorarum

Aphredoderus savanus

Geomys pinetis

Polychaeta

see polychaete

Trachinotus sp.

Sparidae

Porites astreoides

Protonotaria citrea

Tetraodontidae

Tozeuma sp.

Leptolucania ommata

Sistrurus miliarius

Carpiodes cyprinus

Procyon lotor

Farancia erytrogramma

Elaphe sp.

Rajiformes

Sciaenops ocellata

Elaphe guttata

Pseudotriton ruber

Latrodectus bishopi

Storeria occipitomaculata

Nerodia erythrogaster

Melanerpes carolinus

Lepomis auritus

Lepomis microlophus

Notropis harperi

Vireo olivaceus

Esox americanus americanus

Sebastes sp.

Attachment #\_0

red-shouldered hawk red-tailed hawk red-winged blackbird

rice rat ringneck

ring-necked duck ring-necked snake

river frog river otter river cooter robin rose coral

rough green snake

rough starlet

rough-winged swallow ruby-throated hummingbird

rufous-sided towhee rusty blackbird

rusty mud salamander

sailfin molly sailfin shiner saltmarsh snake sand dollar sand skink sandhill crane sardine

scallop

scarlet kingsnake screech owl scrub jay scrub lizard scrub wolf spider

sea anemone

sea fan sea feather sea fingers sea pansy sea plume sea rod sea urchin sea whip

seahorses seaside sparrow

seatrout sheepshead

sheepswood sponge

sheet coral shore crab short-tailed shrew short-tailed snake

Buteo lineatus

Buteo jamaicensis Agelaius phoeniceus

Oryzomys palustris see ring-necked duck

Aythya collaris

Diadophis punctatus

Rana heckscheri Lutra canadensis Pseudemys concinna see American robin Mancina areolata Opheodrys aestivus

Siderastrea radians

see northern rough-winged swallow

Archilochus colubris Pipilo erythrophthalmus Euphagus carolinus

Pseudotriton montanus floridanus

Poecilia latipinna Notropis hypselopterus Nerodia clarkii ssp.

Scutellidae

Neoseps revnoldsi Grus canadensis

Clupeidae Pectinidae

Lampropeltis triangulum elapsoides

see eastern screech-owl see Florida scrub jay see Florida scrub lizard

Lycosidae Actiniaria Gorgonia sp.

Pseudopterogorgia sp. Briareum asbetinum

Renilla sp.

Pseudopterogorgia sp.

Plexaura sp. Echinoidea Leptogorgia sp. Hippocampus sp.

<u>Ammodramus</u> maritimus

Cynoscion sp.

Archosargus probatocephalus

Hippiospongia lachne

Agaricia lamarcki, A. grahamae

Decapoda sp.

Blarina carolinensis Stilosoma extenuatum

six-lined racerunner slimy salamander smooth brain coral smooth star coral smooth starlet coral

snapper snapping turtle snowy egret

southeastern shrew

sora

southeastern five-lined skink

southern chorus frog southern copperhead southern cricket frog southern dusky salamander southern flying squirrel southern hognose snake southern leopard frog southern mink

southern red salamander

southern stingray southern toad spadefoot toad speckled madtom spiny lobster spiny softshell

spot

spotted bass spotted seatrout spotted skunk spring peeper squirrel tree frog staghorn coral

starfish

starhead topminnow starlet coral

stinkpot stone crab stony coral striped mud turtle striped mullet striped newt

striped skunk

striped swamp snake

stumpknocker summer tanager Suwannee cooter Swainson's warbler swallowtail kite

Cnemidophorus sexlineatus

Plethodon glutinosus Diploria strigosa Solenastrea bournoni Siderastrea siderea

Lutjanidae

Shelydra serpentina

Egretta thula Porzana carolina Eumeces inexpectatus Sorex longirostris Pseudacris ornata

Agkistrodon contortrix contortrix

<u>Acris gryllus</u>

Desmognathus auriculatus

Glaucomys volans Heterodon simus Rana utricularia Mustela vison mink

Pseudotriton ruber vioscai

Dasyatis americana Bufo terrestris

see eastern spadefoot Noturus leptacanthus

Panulirus argus Apalone spiniferus Leiostomus xanthurus Micropterus punctulatus Cynoscion nebulosus see eastern spotted skunk

Pseudacris crucifer

Hyla squirella

Acropora prolifera, Acropora

cervicornis Asteroidea Fundulus notti

Siderastrea siderea, S. radians

Sternotherus odoratus Menippe mercenaria

Scleractinia

Kinosternon baurii Mugil cephalus

Notophthaimus perstriatus

Mephitis mephitis Regina alleni Lepomis punctatus Piranga rubra

Pseudemys concinna suwanniensis

Limnothlypis swainsonii Elanoides forficatus

swamp darter tadpole madtom taillight shiner

tarpon

tiger salamander threadfin shad

three-lined salamander

towhee see rufous-sided towhee

tree snail tricolor heron trigger fish tube worm tufted titmouse

turkey

turkey vulture

two-lined salamander two-toed amphiuma

veery

Virginia rail warmouth weed shiner white ibis

white-crowned pigeon white-eyed vireo white-tailed deer

white-throated sparrow

wild turkey
woodcock
wood duck
wood rat
wood stork
worm lizard
yellow bullhead
yellow rat snake
yellow-spotted ray
yellow-bellied turtle
yellow-bellied sapsucker

yellow-belly slider yellow-billed cuckoo

yellow-crowned night heron

yellow-rumped warbler

yellowthroat

yellow-throated warbler

Etheostoma fusiforme

Noturus gyrinus
Notropis maculatus
Megalops atlanticus
Ambystoma tigrinum
Dorosoma petenense

Eurycea longicauda guttolineata

Gastropoda
Egretta tricolor
Balistidae
Polychaeta
Parus bicolor
see wild turkey
Cathartes aura
Eurycea cirrigera
Amphiuma means
Catharus fuscescens
Rallus limicola
Lepomis gulosus
Notropis texanus
Eudocimus albus
Columba leucocephala

Vireo griseus

Odocoileus virginianus Zonotrichia albicollis Meleagris gallopavo see American woodcock

Aix sponsa

Neotoma floridana Mycteria americana see Florida worm lizard

<u>Ictalurus natalis</u>

Elaphe obsoleta quadrivittata

Rajiformes

Trachemys scripta scripta

Sphyrapicus varius
see yellow-bellied turtle
Coccyzus americanus
Nyctanassa violacea
Dedroica coronata

see common yellowthroat

Dendroica dominica

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## APPENDIX 3

The Florida Natural Areas Inventory hierarchical classification of Terrestrial and Palustrine Natural Communities, including brief descriptions of and comparison with other Florida vegetation classification systems. Listed under each Florida Natural Areas Inventory natural community type are types in other vegetation classification systems into which the Florida Natural Areas Inventory type would fit.

The levels of the hierarchy are:

NATURAL COMMUNITY CATEGORIES - defined by hydrology and vegetation

NATURAL COMMUNITY GROUPS - defined by landform, substrate, and vegetation

Natural Community Type - defined by landform and substrate; soil moisture condition; climate; fire; and characteristic vegetation.

The vegetation classifications used in the comparison are:

Kuchler = A.W. Kuchler. 1964. Potential Natural Vegetation of the Conterminous United States. American Geographical Society Special Publication No. 36. (Map and accompanying manual)

Davis = J.H. Davis. 1967. General Map of Natural Vegetation of Florida. Institute of Food and Agricultural Sciences, University of Florida.

SCS =Soil Conservation Service. No date. 26 Ecological Communities of Florida. (Map and accompanying manual)

Myers = R.L. Myers. 1988. Florida's Physical Setting and Florida's Vegetation. Unpublished manuscript.

SAF = F.H. Eyre, Editor. 1980. Forest Cover Types of the United Statesand Canada. Society of American Foresters, Washington, D.C.

FLCFC =Florida Department of Transportation. 1985. Florida Land Use, Cover and Forms Classification System. (Used only the most specific level and class described in the document.)

TERRESTRIAL - Upland habitats dominated by plants which are not adapted to anaerobic soil conditions imposed by saturation or inundation for more than 10% of the growing season.

XERIC UPLANDS - very dry, deep, well-drained hills of sand with xeric-adapted vegetation. Sandhill - upland with deep sand substrate; xeric; temperate; frequent fire (2-5 years); longleaf pine and/or turkey oak with wiregrass understory.

Kuchler 112/Southern Mixed Forest

Davis 6/Forests of Longleaf Pine and Xerophytic Oaks

SCS 4/Longleaf Pine-Turkey Oak Hills

Myers High pinelands - sandhill and southern ridge sandhill

SAF 70/Longleaf Pine

71/Longleaf Pine - Scrub Oak

72/Southern Scrub Oaks

FLCFC 412/Longleaf Pine - Xeric Oak

421/Xeric Oak

other synonyms - High Pine

Scrub - old dune with deep fine sand substrate; xeric; temperate or subtropical; occasional or rare fire (20 - 80 years); sand pine and/or scrub oaks and/or rosemary and cladonia.

Kuchler 115/Sand Pine Scrub
Davis 5/Sand Pine Scrub
SCS 3/Sand Pine Scrub

Myers Scrub - sand pine, oak, and rosemary scrub; slash pine

scrub

SAF 69/Sand Pine FLCFC 413/Sand Pine

other synonyms - Florida scrub, sand scrub

Xeric Hammock - upland with deep sand substrate; xeric-mesic; temperate or subtropical; rare or no fire; live oak and/or sand live oak and/or laurel oak and/or other oaks, sparkleberry, saw palmetto.

Kuchler 112/Southern Mixed Forest

Davis 12/Hardwood Forests SCS 3/Sand Pine Scrub

15/Oak Hammocks

Myers Temperate Hammocks - xeric hammock

SAF 72/Southern Scrub Oak

89/Live Oak

FLCFC 421/Xeric Oak

423/Oak - Pine - Hickory 425/Temperate Hardwood

427/Live Oak 432/Sand Live Oak

other synonyms - dry woods, pine-oak-hickory woods